RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10 \$16,317

Source: 1-17-06

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 01/17/2006
PATENT APPLICATION: US/10/516,317 TIME: 13:26:23

Input Set : A:\P26359.ST25.txt

Output Set: N:\CRF4\01172006\J516317.raw

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4 <110> APPLICANT: MIYAWAKI, Atsushi
             KARASAWA, Satoshi
      7 <120> TITLE OF INVENTION: CHROMOPROTEIN
     9 <130> FILE REFERENCE: P26359
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/516,317
     12 <141> CURRENT FILING DATE: 2004-12-10
     14 <150> PRIOR APPLICATION NUMBER: JP2002/168583
     15 <151> PRIOR FILING DATE: 2002-06-10
     17 <150> PRIOR APPLICATION NUMBER: U.S. National Phase of PCT/JP03/07336
     18 <151> PRIOR FILING DATE: 2003-06-10
    20 <160> NUMBER OF SEQ ID NOS: 22
    22 <170> SOFTWARE: PatentIn version 3.3
    24 <210> SEQ ID NO: 1
    25 <211> LENGTH: 232
     26 <212> TYPE: PRT
     27 <213> ORGANISM: cnidopus japonicus
     29 <400> SEQUENCE: 1
     31 Met Ala Ser Lys Ile Ser Asp Asn Val Arg Ile Lys Leu Tyr Met Glu
                                            10
     35 Gly Thr Val Asn Asn His His Phe Met Cys Glu Ala Glu Gly Glu Gly
     39 Lys Pro Tyr Glu Gly Thr Gln Met Glu Asn Ile Lys Val Thr Lys Gly
     40
     43 Gly Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Asn Cys Gln Tyr
     47 Gly Ser Val Ala Ile Thr Lys Tyr Thr Ser Gly Ile Pro Asp Tyr Phe
                           70
     51 Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Thr Thr Ile Tyr
     55 Glu Asp Gly Ala Tyr Leu Thr Thr Gln Glu Thr Lys Leu Asp Gly
                   100
                                        105
     59 Asn Cys Leu Val Tyr Asn Ile Lys Ile Leu Gly Cys Asn Phe Pro Pro
              115
                                   120
     63 Asn Gly Pro Val Met Gln Lys Lys Thr Gln Gly Trp Glu Pro Cys Cys
                                135
     67 Glu Met Arg Tyr Thr Arg Asp Gly Val Leu Cys Gly Gln Thr Leu Met
                            150
                                                155
     71 Ala Leu Lys Cys Ala Asp Gly Asn His Leu Thr Cys His Leu Arg Thr
                                            170
     75 Thr Tyr Arg Ser Lys Lys Ala Ala Lys Ala Leu Gln Met Pro Pro Phe
                                       185
     79 His Phe Ser Asp His Arg Pro Glu Ile Val Lys Val Ser Glu Asn Gly
```

200

195

80

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83 Thr Leu Phe Glu Gln His Glu Ser Ser Val Ala Arg Tyr Cys Gln Thr
                           215
                                                220
       210
87 Cys Pro Ser Lys Leu Gly His Asn
88 225
91 <210> SEQ ID NO: 2
92 <211> LENGTH: 699
93 <212> TYPE: DNA
94 <213> ORGANISM: cnidopus japonicus
96 <400> SEQUENCE: 2
97 atggcttcca aaatcagcga caatgtacgt atcaagttat atatggaggg cacagtcaac
                                                                           60
99 aatcatcact tcatgtgcga agctgaagga gagggcaagc catacgaggg aactcaaatg
                                                                          120
101 gagaacataa aagtcaccaa aggaggccct ctgccgttct cttttgatat cttgacgcct
                                                                           180
103 aactgccaat atggaagcgt agccataacc aagtatacat cagggattcc agactacttt
                                                                           240
105 aagcaatett tteetgaagg atttacetgg gaaagaacea caatetaega agatgggget
                                                                           300
107 taccttacaa ctcaacaaga aaccaaactt gatggaaatt gcctcgtcta caatattaaa
                                                                           360
109 atccttggat gtaattttcc ccccaatggt cctgtgatgc agaagaaaac ccaaggctgg
                                                                           420
111 gaaccctgtt gcgagatgcg ctatacacgt gatggtgtgc tatgtggcca aacattaatg
                                                                           480
113 gcacttaaat gcgccgatgg gaaccacctc acttgccatc tgagaactac ttacaggtcc
                                                                           540
115 aaaaaggcag caaaggcgtt gcagatgcca cccttccatt tttcagacca tcgtcctgaa
                                                                           600
117 atagtgaagg tttcagagaa cggcacacta tttgaacagc acgaaagttc agtggccagg
                                                                           660
119 tactgtcaaa catgcccatc taaacttggt cacaattaa
                                                                           699
122 <210> SEQ ID NO: 3
123 <211> LENGTH: 17
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: primer
131 <220> FEATURE:
132 <221> NAME/KEY: misc_feature
133 <222> LOCATION: (3)..(3)
134 <223> OTHER INFORMATION: n represents inosine
136 <220> FEATURE:
137 <221> NAME/KEY: misc feature
138 <222> LOCATION: (5)..(5)
139 <223> OTHER INFORMATION: s represents c or g
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (6)..(6)
144 <223> OTHER INFORMATION: n represents inosine
146 <220> FEATURE:
147 <221> NAME/KEY: misc feature
148 <222> LOCATION: (9)..(9)
149 <223> OTHER INFORMATION: n represents inosine
151 <220> FEATURE:
152 <221> NAME/KEY: misc feature
153 <222> LOCATION: (10)..(10)
154 <223> OTHER INFORMATION: h represents a, t, or c
156 <220> FEATURE:
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157 <221> NAME/KEY: misc_feature

Input Set : A:\P26359.ST25.txt

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158 <222> LOCATION: (12)..(12)
     159 <223> OTHER INFORMATION: n represents inosine
     161 <220> FEATURE:
     162 <221> NAME/KEY: misc_feature
     163 <222> LOCATION: (13)..(13)
     164 <223> OTHER INFORMATION: s represents c or g
     166 <220> FEATURE:
     167 <221> NAME/KEY: misc feature
     168 <222> LOCATION: (15)..(15)
     169 <223> OTHER INFORMATION: n represents inosine
     171 <400> SEQUENCE: 3
W--> 172 ggngsnccnh tnscntt
                                                                                 17
     175 <210> SEQ ID NO: 4
     176 <211> LENGTH: 44
     177 <212> TYPE: DNA
     178 <213> ORGANISM: Artificial Sequence
     180 <220> FEATURE:
     181 <223> OTHER INFORMATION: primer
     183 <400> SEQUENCE: 4
                                                                                 44
     184 aactggaaga attcgcggcc gcagaatttt ttttttttt tttt
     187 <210> SEQ ID NO: 5
     188 <211> LENGTH: 36
     189 <212> TYPE: DNA
     190 <213> ORGANISM: Artificial Sequence
     192 <220> FEATURE:
     193 <223> OTHER INFORMATION: primer
     196 <220> FEATURE:
     197 <221> NAME/KEY: misc_feature
     198 <222> LOCATION: (24)..(25)
     199 <223> OTHER INFORMATION: n represents inosine
     201 <220> FEATURE:
     202 <221> NAME/KEY: misc feature
     203 <222> LOCATION: (29)..(30)
     204 <223> OTHER INFORMATION: n represents inosine
     206 <220> FEATURE:
     207 <221> NAME/KEY: misc_feature
     208 <222> LOCATION: (34)..(35)
     209 <223> OTHER INFORMATION: n represents inosine
     211 <400> SEQUENCE: 5
                                                                                 36
W--> 212 ggccacgcgt cgactagtac gggnngggnn gggnng
     215 <210> SEQ ID NO: 6
     216 <211> LENGTH: 22
     217 <212> TYPE: DNA
     218 <213> ORGANISM: Artificial Sequence
     220 <220> FEATURE:
     221 <223> OTHER INFORMATION: primer
     223 <400> SEQUENCE: 6
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22

224 agacgaggca atttccatca ag

227 <210> SEQ ID NO: 7

Input Set : A:\P26359.ST25.txt

Output Set: N:\CRF4\01172006\J516317.raw

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228 <211> LENGTH: 20
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: primer
235 <400> SEQUENCE: 7
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236 ggccacgcgt cgactagtac
239 <210> SEQ ID NO: 8
240 <211> LENGTH: 24
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223 > OTHER INFORMATION: primer
247 <400> SEQUENCE: 8
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248 ggctacgctt ccatattggc agtt
251 <210> SEQ ID NO: 9
252 <211> LENGTH: 30
253 <212> TYPE: DNA
254 <213> ORGANISM: Artificial Sequence
256 <220> FEATURE:
257 <223> OTHER INFORMATION: primer
259 <400> SEQUENCE: 9
                                                                            30
260 cgggatccga ccatggcttc caaaatcagc
263 <210> SEQ ID NO: 10
264 <211> LENGTH: 36
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: primer
271 <400> SEQUENCE: 10
272 ccggaattct taattgtgac caagtttaga tgggca
                                                                            36
275 <210> SEQ ID NO: 11
276 <211> LENGTH: 232
277 <212> TYPE: PRT
278 <213> ORGANISM: cnidopus japonicus
280 <400> SEQUENCE: 11
282 Met Ala Ser Lys Ile Ser Asp Asn Val Arg Ile Lys Leu Tyr Met Glu
283 1
                    5
286 Gly Thr Val Asn Asn His His Phe Met Cys Glu Ala Glu Gly Glu Gly
                                     25
290 Lys Pro Tyr Glu Gly Thr Gln Met Glu Asn Ile Lys Val Thr Lys Gly
            35
                                 40
294 Gly Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Asn Cys Gln Leu
                            55
298 Gly Ser Val Ala Ile Thr Lys Tyr Thr Ser Gly Ile Pro Asp Tyr Phe
                        70
                                             75
302 Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Thr Thr Ile Tyr
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306 Glu Asp Gly Ala Tyr Leu Thr Thr Gln Gln Glu Thr Lys Leu Asp Gly

Input Set : A:\P26359.ST25.txt

Output Set: N:\CRF4\01172006\J516317.raw

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307
                100
                                    105
310 Asn Cys Leu Val Tyr Asn Ile Lys Ile Leu Gly Cys Asn Phe Pro Pro
            115
314 Asn Gly Pro Val Met Gln Lys Lys Thr Gln Gly Trp Glu Pro Cys Cys
                                                 140
                            135
318 Glu Met Arg Tyr Thr Arg Asp Gly Val Leu Cys Gly Gln Thr Leu Met
319 145
                        150
                                             155
322 Ala Leu Lys Cys Ala Asp Gly Asn His Leu Thr Cys His Leu Arg Thr
                    165
                                         170
326 Thr Tyr Arg Ser Lys Lys Ala Ala Lys Ala Leu Gln Met Pro Pro Phe
                180
                                    185
330 His Phe Ser Asp His Arg Pro Glu Ile Val Lys Val Ser Glu Asn Gly
            195
                                200
331
334 Thr Leu Phe Glu Gln His Glu Ser Ser Val Ala Arg Tyr Cys Gln Thr
                                                 220
                            215
338 Cys Pro Ser Lys Leu Gly His Asn
339 225
342 <210> SEQ ID NO: 12
343 <211> LENGTH: 699
344 <212> TYPE: DNA
345 <213> ORGANISM: cnidopus japonicus
347 <400> SEQUENCE: 12
348 atggcttcca aaatcagcga caatgtacgt atcaagttat atatggaggg cacagtcaac
                                                                            60
                                                                           120
350 aatcatcact tcatqtqcqa aqctqaaqqa qaqqqcaagc catacgaggg aactcaaatg
352 qaqaacataa aaqtcaccaa aggaggccct ctgccgttct cttttgatat cttgacgcct
                                                                           180
354 aactgccaac ttggaagcgt agccataacc aagtatacat cagggattcc agactacttt
                                                                           240
                                                                           300
356 aagcaatett tteetgaagg atttaeetgg gaaagaacea eaatetaega agatgggget
                                                                           360
358 taccttacaa ctcaacaaga aaccaaactt gatggaaatt gcctcgtcta caatattaaa
360 atccttggat gtaattttcc ccccaatggt cctgtgatgc agaagaaaac ccaaggctgg
                                                                           420
362 gaaccctgtt gcgagatgcg ctatacacgt gatggtgtgc tatgtggcca aacattaatg
                                                                           480
364 qcacttaaat gcgccgatgg gaaccacctc acttgccatc tgagaactac ttacaggtcc
                                                                           540
366 aaaaaggcag caaaggcgtt gcagatgcca cccttccatt tttcagacca tcgtcctgaa
                                                                           600
368 atagtgaagg tttcagagaa cggcacacta tttgaacagc acgaaagttc agtggccagg
                                                                           660
                                                                           699
370 tactgtcaaa catgcccatc taaacttggt cacaattaa
373 <210> SEQ ID NO: 13
374 <211> LENGTH: 232
375 <212> TYPE: PRT
376 <213> ORGANISM: cnidopus japonicus
378 <400> SEQUENCE: 13
380 Met Ala Ser Lys Ile Ser Asp Asn Val Arg Ile Lys Leu Tyr Met Glu
381 1
384 Gly Thr Val Asn Asn His His Phe Met Cys Glu Ala Glu Gly Glu Gly
                20
                                     25
388 Lys Pro Tyr Glu Gly Thr Gln Met Glu Asn Ile Lys Val Thr Lys Gly
            35
                                 40
392 Gly Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Asn Cys Gln Met
396 Gly Ser Val Ala Ile Thr Lys Tyr Thr Ser Gly Ile Pro Asp Tyr Phe
397 65
                                             75
```

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 3,6,9,12,15 Seq#:5; N Pos. 24,25,29,30,34,35 VERIFICATION SUMMARY

DATE: 01/17/2006

PATENT APPLICATION: US/10/516,317 TIME: 13:26:24

Input Set : A:\P26359.ST25.txt

Output Set: N:\CRF4\01172006\J516317.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0 L:212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0